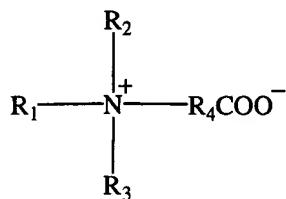


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EXCISE & TRADE MARK OFFICE

WHAT IS CLAIMED IS:

1. (Currently Amended) A wellbore fluid, comprising a high brine carrier fluid having a density of at least 10 pounds per gallon, and comprising an inorganic salt and optionally a member selected from the group consisting of organic acids, organic acid salts, and combination of one or more organic acids or organic acid salts, a co-surfactant, selected among sodium dodecylbenzenesulfonate (SDBS), sodium dodecylsulfate (SDS), and mixture thereof, and an amount of a zwitterionic surfactant represented by the formula:



wherein R_1 is an alkyl, alkylarylalkyl, alkoxyalkyl, alkylaminoalkyl or alkylamidoalkyl group, containing from about 12 to about 24 carbon atoms, branched or straight chains, saturated or unsaturated, and R_2 and R_3 are independently hydrogen or an aliphatic chain having from 1 to about 30 carbon atoms, and R_4 is a hydrocarbyl radical having from 1 to 4 carbon atoms.

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2. (deleted).

3. (deleted).

4. The fluid of claim 1, wherein the zwitterionic surfactant comprises a betaine moiety and an oleic acid moiety.

5. The fluid of claim 1, wherein the brine essentially comprises divalent salts.

6. The fluid of claim 5, wherein said divalent salts are alkaline earth halides.

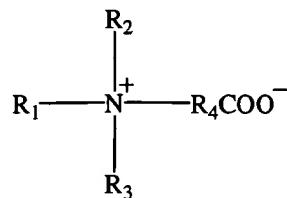
7. (Currently Amended) The fluid of claim 5, wherein the brine essentially consists of calcium chloride; calcium bromide; a combination of calcium bromide and zinc bromide, or mixture thereof.

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8. The fluid of claim 1, wherein the brine essentially comprises monovalent salts.

9. The fluid of claim 8, wherein said monovalent salt are alkali metal halides.

10. (Currently Amended) A wellbore fluid, comprising a high brine carrier fluid having a density of at least 10 pounds per gallon, and comprising an inorganic salt selected among sodium, potassium or cesium bromide and optionally a member selected from the group consisting of organic acids, organic acid salts, and combination of one or more organic acids or organic acid salts, a co-surfactant, selected among sodium dodecylbenzenesulfonate (SDBS), sodium dodecylsulfate (SDS), and mixture thereof, and an amount of a zwitterionic surfactant represented by the formula:

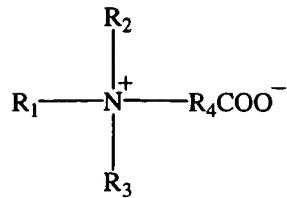


wherein R_1 is an alkyl, alkylarylalkyl, alkoxyalkyl, alkylaminoalkyl or alkylamidoalkyl group, containing from about 12 to about 24 carbon atoms, branched or straight chains, saturated or unsaturated, and R_2 and R_3 are independently hydrogen or an aliphatic chain having from 1 to about 30 carbon atoms, and R_4 is a hydrocarbyl radical having from 1 to 4 carbon atoms.

11. The fluid of claim 7 further comprising an organic salt.

12. (Currently Amended) A wellbore fluid, comprising a high density brine carrier fluid, said carrier fluid having a density of at least 10 pounds per gallon, a member selected from the group consisting of organic acids, organic acid salts, inorganic salts and combination of one or more organic acids or organic acid salts, an amount of a zwitterionic surfactant represented by the formula:

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wherein R_1 is an alkyl, alkylarylkyl, alkoxyalkyl, alkylaminoalkyl or alkylamidoalkyl group, containing from about 12 to about 24 carbon atoms, branched or straight chains, saturated or unsaturated, and R_2 and R_3 are independently hydrogen or an aliphatic chain having from 1 to about 30 carbon atoms, and R_4 is a hydrocarbyl radical having from 1 to 4 carbon atoms and an hydroxyethylaminocarboxylic acid.

13. The fluid of claim 12, wherein said hydroxyethylaminocarboxylic acid is selected from hydroxyethylethylene-diaminetriacetic acid (HEDTA), hydroxyethylimino-diacetic acid (HEIDA), or a mixture thereof or analogous materials hydroxyalkyl, allyl or aryl-aminocarboxylic acids.

14. The fluid of claim 13, wherein the inorganic salt or mixture of inorganic salts essentially consists of monovalent salts.

15. The fluid of claim 14, wherein the monovalent salts are alkali metal halides.

16. (Currently Amended) The fluid of claim 15, wherein said alkali metal halide is sodium, potassium or cesium bromide.

17. The fluid of claim 12, further comprising an organic salt.

18. A method of treating a subterranean wellbore comprising the step of injecting into the wellbore the high density brine carrier fluid of claim 1.

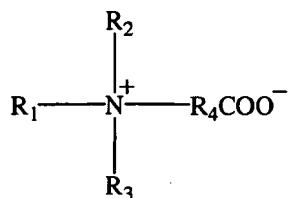
19. The method of claim 18, wherein said method of treating a well includes at least one of the following operations: drilling, hydraulic fracturing, gravel placement, scale removing, mud cake removing.

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20. A method of treating a subterranean wellbore comprising the step of injecting into the wellbore the high density brine carrier fluid of claim 12.

21. The method of claim 20, wherein said method of treating a well includes at least one of the following operations: drilling, hydraulic fracturing, gravel placement, scale removing, mud cake removing.

22. (New) A wellbore fluid, comprising a high brine carrier fluid having a density of at least 12.5 pounds per gallon, and comprising an inorganic salt and optionally a member selected from the group consisting of organic acids, organic acid salts, and combination of one or more organic acids or organic acid salts, a co-surfactant, and an amount of a zwitterionic surfactant represented by the formula:



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wherein R_1 is an alkyl, alkylarylalkyl, alkoxyalkyl, alkylaminoalkyl or alkylamidoalkyl group, containing from about 12 to about 24 carbon atoms, branched or straight chains, saturated or unsaturated, and R_2 and R_3 are independently hydrogen or an aliphatic chain having from 1 to about 30 carbon atoms, and R_4 is a hydrocarbyl radical having from 1 to 4 carbon atoms.

23. (New) The fluid of claim 22, wherein the co-surfactant is selected among salts of an alkyl benzene sulfonate.

24. (New) The fluid of claim 22, wherein the co-surfactant is selected among sodium dodecylbenzenesulfonate (SDBS), sodium dodecylsulfate (SDS), and mixture thereof.

25. (New) The fluid of claim 22, wherein the zwitterionic surfactant comprises a betaine moiety and an oleic acid moiety.

26. (New) The fluid of claim 22, wherein the brine essentially comprises divalent salts.

27. (New) The fluid of claim 26, wherein said divalent salts are alkaline earth halides.

28. (New) The fluid of claim 26, wherein the brine essentially consists of calcium chloride; calcium bromide; a combination of calcium bromide and zinc bromide, or mixture thereof.

29. (New) The fluid of claim 22, wherein the brine essentially comprises monovalent salts.

30. (New) The fluid of claim 29, wherein said monovalent salt are alkali metal halides.
